

Claims

1. Screening apparatus for use at an overflow weir in a sewerage system, comprising a continuous moving screen band and a band cleaning mechanism, wherein a first portion of said screen band is configured to move along said weir towards one end of said weir, a second portion of said screen band is configured to move along said weir towards the opposite end of said weir, a steeper portion of said screen band extends to an elevated position above said first and second portions, and said band cleaning mechanism comprises a cleaning device made of a solid but flexible material, arranged to remove solid matter from the screen band at said elevated position.

2. Screening apparatus according to claim 1, wherein the elevated position is located above the overflow weir, such that said elevated position does not become submerged when water is flowing over said weir.

3. Screening apparatus according to claim 2, wherein the cleaning mechanism comprises a rotating cleaning device.

4. Screening apparatus according to claim 3, wherein the rotating cleaning device comprises a rotating cylinder having longitudinal flexible strips.

5. Screening apparatus according to claim 3, wherein the rotating cleaning device comprises a rotating brush.

6. Screening apparatus according to claim 1, wherein said apparatus comprises an barrier defining a emergency overflow level, and said first and second portions are arranged to be below said emergency overflow level, whereby both of said first and second portions are arranged to provide a flow of water to said overflow weir.

7. Screening apparatus according to claim 1, wherein said first portion and/or said second portion extends substantially horizontally.

8. Screening apparatus according to claim 1, wherein said apparatus includes a spacing means for providing horizontal separation between said screen band and said weir to facilitate water flow from within said screen band and over said weir.

9. Screening apparatus according to claim 8, wherein said spacing means comprises a box structure such that screened water passes through said box structure before passing over said weir.

10. Screening apparatus according to claim 1, wherein said first portion extends substantially parallel to said second portion.

11. An overflow weir in a sewerage system and screening apparatus according to any claim 1, wherein the upper edge of said weir has a reduced width to facilitate water flow from said screening apparatus.

12. A method of screening sewage at an overflow weir in a sewerage system, comprising the steps of:

moving a continuous screen band around a guide means such that a

first portion of said screen band moves along said weir towards one end of said weir, a second portion of said screen band moves along said weir towards the opposite end of said weir, and a steeper portion of said screen band extends to an elevated position above said first and second portions;
5 and

cleaning solid matter from the screen at said elevated position by means of a band cleaning mechanism comprising a cleaning device made of a solid but flexible material.

10 **13.** A method according to claim **12**, wherein the band cleaning mechanism comprises a rotating cleaning device.

14. A method according to claim **13**, wherein the rotating cleaning device comprises a rotating cylinder provided with flexible strips.

15

15. A method according to claim **13**, wherein the rotating cleaning device comprises a rotating brush.

16. A method of screening sewage according to claim **12**, wherein
20 said method comprises providing a barrier defining an emergency overflow level above said first and second portions, whereby both said first and second portions provide a flow of water to said overflow weir.

17. A method of screening sewage according to claim **12**, wherein
25 said method comprises providing a barrier defining an emergency overflow level below said elevated position.

18. A method of screening sewage according to claim **12**, wherein

said first portion and said second portion extend substantially horizontally.

5 **19.** A method of screening sewage according to claim **12**, wherein a horizontal separation is provided between said screen band and said weir to facilitate water flow from within said screen band and over said weir.

10 **20.** A method of screening sewage according to claim **19**, wherein said horizontal separation is provided by a box structure such that screened water passes through said box structure before passing over said weir.

21. A method of screening sewage according to claim **12**, wherein said first portion extends substantially parallel to said second portion.

15 **22.** A method of screening sewage according to claim **12**, wherein the upper edge of said weir is provided with a reduced width to facilitate water flow from said screening apparatus.

20 **23.** A method of screening sewage according to claim **12**, wherein the elevated position is located above the overflow weir, such that said elevated position does not become submerged when water is flowing over said weir.

24. Screening apparatus attached to an overflow weir in a sewerage system, comprising:

25 a continuous moving screen band such that a first portion of said screen band is configured to move along said weir towards one end of said weir, a second portion of said screen band is configured to move along said weir towards the opposite end of said weir;

a band cleaning mechanism, and
a panel attached to the weir wall supporting a guide for one edge of
the screen band,

wherein:

5 said screen band further comprises a second portion extending to an
elevated position above said first and second portions;

 said band cleaning mechanism is arranged to remove solid matter
from the screen band at said elevated position; and

 said panel defines an emergency overflow level, said first and
10 second portions being arranged to be below said emergency overflow level,
whereby both of said first and second portions are arranged to provide a
flow of water into said apparatus and to said overflow weir,

25. Screening apparatus according to Claim **24**, wherein said panel
15 also defines an aperture, such that water passing through the band screen
passes through the aperture and to the weir.

26. Screening apparatus according to Claim **24**, wherein said
elevated portion is arranged to be above said emergency overflow level.